

Influence of admixture of cellulose nitrate on the properties of acetate films. I. (C. G. Odhner and I. G. S. Krasnaya, *Vestn. S. S. R. P. N.*, No. 6, 1937) The bases made of cellulose acetate contain 10% cellulose more resistant than pure cellulose acetate to the action of moist fuming. The expansion of the acetate is obtained when the cellulose acetate is in the swelling of mixed bases, its additive properties are manifested from the swelling of the pure acetate and cellulose. The rate of burning is a linear function of the cellulose nitrate content in the base, but it does not depend on the nature of the plasticizer used. The time of decomposition const. through the range of 100-300% cellulose nitrate. For compns. of 40% and below, it increases in proportion to the square of the cellulose acetate content. Below compns. less than 30% of cellulose acetate decompose spontaneously at 50% in the proportion of 1:1.5. At 200°C temp even when no water is this acid. C. G. Odhner

ASMEA METALLURGICAL LITERATURE CLASSIFICATION

62

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES

The composition of cellulose nitrate films. F. S. Nierman and A. Yu. Gindelman. *Kinofotokhim. Prom.* 6, No. 7, 20-34 (1910). S. and G. compare the components of Soviet, Agfa and du Pont films. The different components of the films are detd. as follows: Cellulose nitrate is pptd. in  $H_2O$  from a 5% acetone soln. Then the plasticizer is removed with a mixt. of EtOH and petr. ether and the residue dried to const. wt. The camphor is detd. by Zueva's method (C. A. 35, 2469) by dissolving the base in a pure alc. soln. of NaOH, distn. of the camphor and pptn. as the diisopropenylidene. The residual solvents are not detd. by the usual boiling of the film base in  $H_2O$  and distn. of the solvents, because this also removes the camphor and high-boiling ales. S. and G. suggest, instead, plotting curves of the loss of wt. by drying and detn. of the alc.- $H_2O$  mixture by A. A. Schmidt's method using  $CaCl_2$  in a very small space to absorb alc. and  $H_2O$  but not acetone and acetates. The amt. of cellulose nitrate and N found in du Pont and Agfa films was much greater than the corresponding amts. in Soviet films. The stability of all films was within permissible limits. The ash content of du Pont and Agfa films was generally lower than that of Soviet films. The viscosity of Agfa film was the same as that of film made in Soviet factory No. 5 but higher than that of films made by du Pont and Soviet factory No. 6. The polydispersion of foreign films was much lower than that of Soviet films, but this is probably due to the higher quality of the filters and the more perfect production methods of the former.

W. R. Fichter

ARM-SLA METALLURGICAL LITERATURE CLASSIFICATION

E 711.2 - 422

Chen, S. J.

Shih Chen Jui

Subject: "Investigation of the Stability of Various Derivatives of Cellulose  
and Products of their Partial Hydrogenation Salification."

To: State 4

All-Russian Inst of Virology, Moscow

SO Vecheryaya Moskva  
Sum 71

CA

**Heterogeneous hydrolysis of triacetylcellulose.** <sup>1-2</sup>  
Sternov and E. O. Goldstein, Univ. Photo Inst., Moscow,  
Zhur. Tsvet. Metal. i Pril. Applied Chem. 25, 849 (1942).  
Partial hydrolysis of cellulose triacetate by  $\text{Al}(\text{ClO}_4)_3$  at room  
temp. causes a significant depolymerization of the sub-  
strate. The product obtained from the production type of  
fibers to acetate made in U.S.S.R. is not completely sol-  
uble in  $\text{Me}_2\text{CO}$ . The hydrolysis is carried out with 1 part  $\text{Al}(\text{ClO}_4)_3$  in  
acetone, at room temp. of up to 96 hrs. duration showed that most  
of the reaction occurs within 72 hrs. The viscosity of the  
product changes very little during the reaction. The prod-  
uct can be reacetylated and the process repeated several  
times without appreciable change in viscosity or in degree of  
polymerization. Products with 55.8% acetate groups  
will vary considerably in acetone and dissolve in part  
of the oil part is impossible by the technique used  
G. M. Koval'yan

23

CA

**Solubility of acetylcellulose in acetone.** P. V. Kozlov and E. S. Sherman, *Zhur. Priklad. Khim.* (J. Applied Chem.) 25: 1841-91 (1952).—Cellulose acetates with 32-85% Ac groups prepd. by homo- and heterogeneous conditions of acetylation and subsequent hydrolysis were examd. as to their solv. in  $\text{Me}_2\text{CO}$ . The solv. is detd. largely by the mol. wt. (i.e., extent of polymerization). Secondary acetates, prepd. by homogeneous esterification and hydrolysis, show lower than normal mol. wt. owing to depolymerization and, hence, higher solv. Products formed in heterogeneous conditions under mild conditions show only partial solv. owing to the presence of varying amts. of low-mol. wt. products. Their depolymerization causes appearance of complete solv. in  $\text{Me}_2\text{CO}$ . Results are cited for numerous grades of native (U.S.S.R.) and imported cellulose acetates. G. M. K.

SHERMAN, F. S.

Chemical Abst.  
Vol. 48 No. 9  
May 10, 1954  
Cellulose and Paper

✓ Solubility of acetylcellulose in acetone. P. V. Kozlov  
and F. S. Sherman. *J. Appl. Chem. U.S.S.R.* 23, 121-0  
(1952) (Engl. translation).--See C.A. 46, 7325g.

H. L. H.

SHABROV, A. S., VITOV, I. I.

Cellulose triacetate

Heterogeneous hydrolysis of cellulose triacetate. Zhur. prikl. khim. 26 no. 1 (1952)  
Vsesoyuznyj Nauchno-Issledovatel'skiy  
Kino-rotoinstitut. Moskva

Monthly List of Russian Accessions, Library of Congress, August, 1952. UNCLASSIFIED.

SHERMAN, F. S.

Solubility of fibrous cellulose triacetate and products of its partial heterogeneous saponifications in mixtures of methylene chloride with alcohols. F. S. Sherman and P. V. Kozlov. *J. Appl. Chem. U.S.S.R.* 6, 785-80 (1953) (Engl. translation). — See C.A. 47, 10839i. H. L. H.

SHERMAN, F.S.; KOZLOV, P.V.

Solubility of fibrous cellulose triacetate and products of its partial heterogeneous saponification in mixture and methylene chloride with alcohols.  
Zhur. Priklad. Khim. 26, 524-31 '53. (MLRA 6:5)  
(CA 47 no.20:10839 '53)

SHERMAN, F. S.

*Photo  
Sherman*

11728\* (Russian.) Physico-Chemical Properties of Triacetate Movie Film and Film Bases at Elevated Temperatures. Fiziko-mekhanicheskie svoistva triacetatnoi kinoplenki i osnovy pri povyshennykh temperaturakh. F. S. Sherman, B. N. Korostylev, and I. M. Fidman. *Tekhnika Kino i Televideniya*, no. 2, Feb. 1957, p. 54-58.

*5*  
Tear resistance of triacetate film materials decreases with rising temperature to a greater extent than that of film materials based on nitrocellulose.

*Dm*

*will do*

AUTHOR:

Sherman, F.S.

SOV 77-3-4-18/23

TITLE:

New Synthetic Materials as a Base for Photographic Films  
(Novyye sinteticheskiye materialy dlya osnovy fotograficheskikh  
plenok)

PERIODICAL:

Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1958,  
Vol 3, Nr 4, pp 295-299 (USSR)

ABSTRACT:

The article deals with the process of using polycarbonates as  
backing material for films, developed and put into practice by  
the "Farbenfabriken Bayer", GFR. Chemical formulae for the poly-  
carbonates used are listed and the physical properties of films  
using the various polymers are presented in tabular form. There  
are 3 tables and 5 references, 1 of which is Soviet, 1 German  
and 3 English.

1. Photographic films--Materials    2. Carbonates--Applications  
3. Polymers--Applications

Card 1/1

S/187/63/000/002/001/004  
A004/A126

AUTHORS: Timofeyeva, V. G., Sherman, F. S., Podgorodetskiy, Ye. K.

TITLE: Investigating relaxation processes in triacetate films

PERIODICAL: Tekhnika kino i televideniya, no. 2, 1963, 21 - 26

TEXT: The authors investigated the relaxation in nonplasticized cellulose acetate films with different contents of combined acetic acid and at different degrees of tension and temperature. It was found that the cellulose acetate composition affects the relaxation process. The higher the amount of hydroxyl groups in the cellulose acetate, the more difficult is the relaxation process. Then the relaxation process in plasticized films of partially saponified cellulose triacetate was studied at different temperatures and tensions. It was found that the type of plasticizer added to the film affects its macrostructure. Plasticizers of low activity result in a greater reduction in tension under temperature effects than do films without plasticizers. If active plasticizers are added to the film composition, inner stresses resulting from heating due to the effect of loads are more easily removed. Such a film, after relieving the stresses, is in an equilibrium state and is subjected to a minimum shrinkage after watering. To produce

Card 1/2 .

Investigating relaxation processes in...

S/187/63/000/002/001/004  
A004/A126

film bases with such properties, the drying portion of the casting machine should be equipped with devices allowing accurate control of the base tension. Besides, it is necessary to increase the temperature in the final zones of the drying portion of the casting machine up to 120°C. There are 4 figures and 3 tables.

Card 2/2

ZELIKMAN, V.L.; SHERMAN, F.S.; DMITRIYEVA, V.A.; KONDRAT'YEVA, Ye.B.

Use of the diffusometric method for determining the sharpness of the photographic image in the manufacturing technology of thin-layer motion-picture films. Usp.nauch.fot. 10:221-229 '64.

(MIRA 17:10)

SHERMAN, G. I.

PA 55/49157

USBR/Electricity

Generators  
Saturation Curves

May 49

"Determination of the Operational Characteristics of Synchronous Generators, Allowing for Saturation," G. I. Sherman, Cand. Tech Sci, 4 pp

"Elektrichesvo" No 5

Describes shortcomings of Potier, Crary, and other methods of determining saturation curves of synchronous generators. Operating diagrams for synchronous generators have been insufficiently developed to date. Considers in some detail

55/49157

USBR/Electricity (Contd)

May 49

the coefficient of saturation and operating diagrams. Submitted 7 Aug 48.

55/49157

SHERMAN, I.

Unsolved problems of transportation law. Rech. transp. 20 no.5:  
14-16 My '61. (MIRA 14:5)

1. Glavnny yuriskonsul't Kamskogo rechnogo parokhodstva.  
(Inland water transportation—Law and legislation)

SHEVCHENKO, N.F.; SHERMAN, I.L.; MUZYCHENKO, S.V.; SHEVCHENKO, M.G.,  
tekhn.red.

[Results of the socialist development of the Ukraine in the  
first ten years of Soviet rule] Itogi pervogo desiatiletia  
sotsialisticheskogo stroyitel'stva na Ukraine. Khar'kov,  
Khar'kovskoe obl.izd-vo, 1957. 105 p. (MIRA 12:12)  
(Ukraine--Economic conditions)

SHERMAN, I.Ye.; GRIGOR'YEV, V.N.

Small-scale mechanization in the woodworking shop. Der. prom. 6  
(MIRA 10:11)  
no.10:23-24 O '57.

1. Leningradskiy vagonostroitel'nyy zavod im. I.Ye. Yegorova.  
(Railroads--Cars--Construction) (Woodwork)

*Документ №*  
SHERMAN, I.Ye.; TIMOSHENKO, Ye.Ye.

Efficient method for making moldings. Der.prom.6 no.12:24-25  
D '57. (MIRA 10:12)  
(Woodworking machinery)

28-58-2-47/41

AUTHORS: Timoshenko, Ya.Ye., and Sherpan, I.Ye., Engineers

TITLE: More precise Specifications for the Standard for Wooden Parts of Railway Cars (Utochmeniya k standartu na derevyannyye detaili zheleznodorozhnykh vagonov)

PERIODICAL: Standartizatsiya, 1958, Nr 2, p 61 (USSR)

ABSTRACT: Amendments are suggested to the "GOST 1191-53" standard for wooden parts of wide-track RR-cars. The amendments concern the working of the rules for wood insets (in spots where knots are taken out); the specifications of plywood and wood panels; the surface finish for soaking with antiseptic paste "Vagonka".

ASSOCIATION: Zavod imeni Yegorova (Plant imeni Yegorov)

AVAILABLE: Library of Congress

Card 1/1 1. Railway cars-Construction-Standards 2. Standardization-USSR

SHERMAN, I.Ye.

Cone shaping of parts on a machine with conveying belts. Der.prom.  
8 no.4:23 Ap '59. (MIRh 12:6)  
(Woodwork)

SHERMAN, Ye.Ye.; SHERMAN, I.Ye.

Machine for priming and painting wood parts. Der. prom. 8 no.9:  
26-27 S '59. (MIRA 12:12)  
(Wood finishing)

SHERMAN, I.Ye., inzh.

Drills with circular undercutters. Der.prom. 9 no.2:24  
F '60. (MIRA 13:6)  
(Drilling and boring machinery)

SHERMAN, I.Ya.

Drill for deep drilling with simultaneous countersinking, Der.  
prom. 13 no.7:28 Jl '64. (MIRA 17:11)

Uralmash, Ural.

vezd'yan roza nut'ler end drill. Der.prom. 14 no.31000 6-5.  
(VITA 19:12)  
L. Leningradskiy vagonosvoitelskyy zavod im. Yegorova.

PEREL'MAN, L.B.; CHLENOV, L.G.; SHERMAN, L.M.

Temporary ligation of the neuro-vascular bundle of the temporal region as a form of reflex therapy of central cerebral disorders in hypertension.  
Klin. med., Moskva 30 no. 9:81-89 Sept 1952. (CLML 23:2)

1. Doctor Medical Sciences for Perel'man; Professor for Chlenov. 2. Of the Institute of Neurology of the Academy of Medical Sciences USSR (Director -- Prof. N. V. Konovalov, Active Member AMS USSR).

SHERMAN, L.M.

ZHIMUNSKAYA, Ye.A.; SHERMAN, L.M.

Electrical activity of the brain in hypertension during provisional ligature of the neurovascular bundle of the temporal lobe. Klin. med. 32 no.7:37-42 J1 '54. (MLRA 7:8)

1. Iz Instituta nevrologii (dir.-deystvitel'nyy chlen AMN SSSR prof. N.V.Konovalov) Akademii Meditsinskikh nauk SSSR.

(HYPERTENSION

EEG after temporary interruption of neurovasc. bundle of temporal lobe)

(TEMPORAL LOBE

temporary interruption of neurovasc. bundle, eff. of EEG in hypertension)

(ELECTROENCEPHALOGRAPHY, in various diseases

hypertension, eff. of temporary interruption of neurovasc. bundle of temporal lobe)

RUDERMAN, A.I.; SHERMAN, L.M.

Clinical roentgenologic investigations of the efficacy of a temporary ligation of the neurovascular bundle of the temporal region in gastric and duodenal ulcer. Biul. eksp. biol. i med. 37 no.4:30-34 Ap '54.

(MLRA 7:7)

1. Iz rentgenodiagnosticheskogo etdeleniya (sav. prof. I.A.Shekter) TSentral'nogo nauchno-issledovatel'skogo instituta rentgenologii i radiologii imeni V.M.Molotova (dir. prof. P.D.Yal'tsev)  
(PEPTIC ULCER, surgery.  
\*temporary neuro-vasc. ligation of temporal region)

2737. SHERMAN L. M. Hosp. Medpiyavka. \* Temporary ligation of the neurovascular bundle of the occipital region as a useful procedure in the 'reflex' therapy of varicose ulcers of the leg (Russian text) KLIN. MED. (Mosk.) 1955, 33/3 ('i)

Phlogistic manifestations of varicose veins with thrombophlebitis complications can well bring about irritation of the CNS with a re-awakening of pathological reactions that translate themselves into ulcerations. Basing himself on the fact that varicose ulcers may be reactivated by means of a complex reflex action, the author has conceived a method consisting of a reflex generating therapy by means of a temporary ligation of the neurovascular bundle of the occipital region. The author has observed 15 cases undergoing ambulatory treatment for a period of 2 to 10 yr. Eleven patients were afflicted with chronic thrombophlebitis of superficial veins, while in 4 the deep veins were involved. Favourable results with this therapy included 11 out of 15 patients treated over a period of 10-14 days. Complete disappearance of the varicose ulcers and the pain occurred in 8; in 4 the period of follow-up was 16 months, and in 4, about 2-10 months. In 3 cases the ulcers did not heal completely, and in 4, the therapy proved useless. The author has noted a rise in superficial temperature of 0.2 to 8° in cases undergoing this form of therapy. On the positive side of the method is first of all its simplicity of execution without interrupting the work or other activities of the patients.

Parenti - Ferrara

RUDERMAN, A.I.; ZAYRAT'YANTS, V.B.; SHERMAN, L.M.

Weakening of local radiation reactions. Med.rad. 1 no.6:61-65  
N-D '56. (MLRA 10:2)

1. Iz rentgenoterapevticheskogo (rukovoditel' - prof. L.D.Podlyashchuk) i patomorfologicheskogo (rukovoditel' - chlen-korrespondent AMN SSSR zasluzhennyy deyatel' nauki prof. B.N.Mogil'nitskiy) otdeleniy Gosudarstvennogo nauchno-issledovatel'skogo instituta rentgenologii i radiologii imeni V.M.Molotova.

(RADIATION, inj. eff.  
ionizing radiations causing wds. in white rats, eff. of  
ligatures on healing)

(WOUNDS AND INURIES, exper.  
induced by ionizing radiations in white rats, eff. of  
ligatures on healing)

BALABAN, I.M., inzhener; FRENKEL', P.M., inzhener; SHERMAN, L.N., arkhitekt

Bearing structures of industrial buildings having roofs made of  
corrugated asbestos cement slabs. Stroi.prom.25 no.1:9-11 Ja'47.  
(MIRA 8:12)

1. Promstroyprojekt  
(Structural frames) (Roofs)

ANDRES, L. M., inzhener; SOKOLOV, P. N., inzhener; SHERMAN, L. N., arkitekt

Selecting optimum parameters for corrugated asbestos cement slabs  
used for walls and roofs of buildings and structures. Stroi.prom.  
25 no.1:13-15 Ja'47. (MLRA 8:12)

1. Promstroyproyekt (for Andres and Sherman).  
(Asbestos cement) (Walls)

SHERMAN, L.N., laureat Stalinskoy premii, arkitektor; OVSYANKIN,  
V.I., laureat Stalinskoy premii, arkitektor; FRENKEL',  
P.M., inzhener; PERSON, M.N., tekhnicheskiy redaktor.

[Asbestos cement enclosure sheets for industrial buildings]  
Ograzhdaiushchie konstruktsii iz asbestotsementnykh listov  
dlia promyshlennyykh zdanii. Moskva, Gos. izd-vo lit-ry po  
stroitel'stvu i arkitekture, 1952. 326 p. [Microfilm]  
(Asbestos cement) (MLRA 7:12)

AID P - 515

Subject : USSR/Engineering  
Card 1/1 Pub. 93 - 2/12  
Author : Sherman, L. N., architect, Recipient of Stalin Prize  
Title : Construction of machine and tractor repair shops for  
machine and tractor service stations  
Periodical : Sbor. mat. o nov. tekhn. v stroi., 6, 3-8, 1954  
Abstract : A master plan and construction details of repair shops  
for MTS are described. The plan was worked out by the  
State Institute for the Planning of Agricultural Con-  
struction. 5 diagrams.  
Institution : None  
Submitted : No date

SHERMAN, L.N., arkhitektor, laureat Stalinskoy premii.

Mass production plans for machine-tractor station buildings.  
Stroi.prom.32 no.1:4-9 Ja '54. (MLRA 7:2)

1. Promstroyprojekt. (Buildings, Prefabricated)  
(Machine-tractor stations)

BORISHANSKIY,M.S., kandidat tekhnicheskikh nauk; GVOZDEV,A.A., professor,  
doktor tekhnicheskikh nauk; MIZERNYUK,B.N., inzhener; NIKITIN,N.V.,  
inzhener; SHERMAN,L.N., arkhitektor

Precast reinforced concrete beams developed by the State Planning  
Institute of Industrial Construction and the Central Scientific  
Research Institute of Industrial Construction. Rats. i izobr.  
predl. v stroi. no.81:20-22 '54. (MIRA 8:6)  
(Girders) (Precast concrete construction)

SHERMAN, L.N., arkhitektor, laureat Stalinskoy premii.

Zero-load fixing of external columns and walls to separated axes  
of a building. Stroi. prom. 33 no.9:27-29 S '55. (MLRA 9:1)

1. Promstroyproyekt.  
(Structural frames)

SHERMAN, L.N. arkitektor.

Skylights with supporting glass panels. Stroi. prom. 36 no.1:20-24  
Ja '58. (MIRA 11:1)  
(Skylights)

SHCHIPAKIN, L.N.; SHERMAN, L.N.

Marking foundations for sinking sectional piles. Stroi. prom. 36 no.1:  
43-144 Ja '58. (MIRA 11:1)  
(Foundations) (Pile driving)

SHERMAN, L.I., arkhitektor

Experimental plan for redesigning the auxiliary areas of a  
foundry. Piem. stroi. 39 no.7:33-35 '61. (MIRA 14:7)

1. TSentral'nyy nauchno-issledovatel'skiy i proyektno-eksperimental'nyy  
institut promyshlennykh zdaniy i sooruzheniy.  
(Foundries)

SHERMAN, L.H.

Welfare and cultural services at industrial enterprises. Prom. stroi.  
40 no.6:24-28 '62. (MIRA 15:6)

1. TSentral'nyy nauchno-issledovatel'skiy i proyektno-eksperi-  
mental'nyy institut promyshlennyykh zdaniy i sooruzheniy.  
(Employees' buildings and facilities)

SMIRNOV, V.P., inzh., red.; SHERMAN, L.N., arkh., red.

[Construction specifications and regulations] Stroitel'nye normy i pravila. Moskva, Gosstroizdat. Pt.2. Sec.M.ch.3. [Auxiliary buildings and installations for industrial enterprises; specifications for planning] Vspomogatel'nye zdaniia i pomeshcheniya promyshlennykh predpriatii; normy proektirovaniia (SNiP II-M. 3062). 1963. 21 p. (MIRA 17:3)

1. Russiia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva. 2. Gosstroy SSSR (for Smirnov). 3. Tsentral'nyy nauchno-issledovatel'skiy i proyektno-eksperimental'nyy institut promyshlennykh zdaniy i sooruzheniy (for Sherman).

"APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001549120005-4

LEV-NUKOV, A. I., LAVAIKOV, V. P., ASTRAKOV, S. A., BILANOV, T. S., PARISHNIKOV,  
A. I., SALKOV, V. I., STAVISKY, Yu. I., STREUBER, A. A. and SHERMAN, L. Ye.

"Effective Cross-Section Measurements of Fast Neutron Radiation Capture."

paper to be presented at 2nd UN Intl. Conf. on the peaceful uses of Atomic  
Energy, Geneva, 1 - 13, Sept 58.

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001549120005-4"

89-1-16/29

AUTHOR: Sherman, L. Ye.

TITLE: Determination of the Reaction Cross Section  $U^{238}(n,2n) U^{237}$   
(Izmereniye sechenija reaktsii  $U^{238}(n,2n) U^{237}$ )

PERIODICAL: Atomnaya Energiya, 1958, Vol. 4, Nr 1, pp. 87-88 (USSR)

ABSTRACT: By means of a  $4\pi$ -counting tube the absolute number of  $\beta$ -decay of  $U^{237}$  was determined and herefrom the  $\sigma$ -value for the reaction  $U^{238}(n,2n) U^{237}$  was determined at  $11,24 \pm 1,70$  mb. The uranium sample was irradiated with fast neutrons. There are 2 references, 1 of which is Slavic.

SUBMITTED: August 28, 1957

AVAILABLE: Library of Congress

Card 1/1

11740851

**TITLE:** Investigations of the Physics of Reactors with Fast Neutrons. II  
(Issledovaniya po fizike reaktorov na bystrykh neutronakh)  
(Continued from abstract 6/15)  
**REFERENCE:** Atomnaya energiya, 1956, Vol. 5, No. 5, pp. 284-295 (USSR)

**ABSTRACT:** The reactivity and the kinetics of the reactor were measured. It could be shown that in the center of the active zone the weight of the 5 MeV neutrons is higher by  $\sim 15\%$  than that of 250 MeV neutrons. The effective yield of the delayed neutrons in the reactor with a uranium shield exceeds that of a reactor with a copper shield by 1.4 times its amount.

**Reactor H:** The active plutonium zone is the same as in reactor SR-1. In

cont 1/

of 8 cm thickness. The uranium-uranium lattice contains of cylindrical slugs of normal uranium, which have a diameter of 25 mm. The cladding material is aluminum. The ratio between water and uranium is 0.35. The lattice spacing is 0.40 mm. Measurements carried out with the water-uranium lattice showed that with the pure uranium layer shored up, the conversion factor is reduced from  $2.45 \pm 0.10$  to  $1.7 \pm 0.2$ .

2) In the case of a fixed power output of the active zone the velocity with which the total quantity of plutonium-239 and uranium-235 is formed was increased by 5%.

3) The velocity with which plutonium is produced increased by 1.6 times its original.

4) In the case of a fixed power output of the active zone the total power output of the reactor is increased by 0.1 times its original.

or the total volume of the active zone. The regulating rods (interior or shield) are made from a copper-beryllium alloy. The external shield consists of uranium slugs covered with stainless steel. Thickness  $\sim 25$  cm. The uranium shield is surrounded by copper of 15 cm thickness. The pressure of mercury in the active zone is used to increase the pressure of neutrons in the spectrum. The conversion factor was 1.6:0.25. Theoretically the kinetic equation for this factor was calculated by G. I. Marchuk according to the method developed by V. V. Vladimirov. Theoretical calculation of the critical mass was carried out with an error of 4%, and that of the effective number of neutrons per fission with an error of 6%. The effectiveness of the regulating neutrons was found to amount to 0.75. Yield of the delayed neutrons was 0.24. Under these conditions the experimental value was 0.29, of which 9 of which

Card 3/4

1. (a) PRIMER IN BOOK EXPLOITATION  
2. (b) 1970/2001  
3. (c) International Conference on the peaceful Uses of Atomic Energy, 2nd, Geneva, 1958  
4. (d) *Kharkovskiy universitetskiy studentcheskiy vestnik* (Reports of Soviet Scientists; Nuclear Physics) No.1-2, Kharkov, 1959, 522 p. (Series: Issi Trudy, Vol. 1.) 8,000 copies printed.

International Conference on the Historical Basis of Atomic Energy, 26. October, 1959  
Sotsial'no-tekhnicheskii obozreniye (Reports of Soviet Scientists;  
Soviet Physics) Moscow, November, 1959. 52 p. (Series: Iosif Trudy, Vol. 1)

Ms. (Title page). A.-T. Alibabov, Academician, and  
Prof. V. V. Goryainov, Candidate of Physical and Mathematical Sciences. Ed. of this  
volume: Prof. V. V. Goryainov and Prof. V. V. Sosulin. Committee of Physical and Mathematical  
Sciences (Leningrad). Leningrad: Naukova Dumka, 1981. 120 p. 22 cm.

**PURPOSE:** This collection of articles is intended for scientific research workers and other persons interested in nuclear physics. The volume contains 45 papers presented by Soviet scientists at the Second Conference on Peaceful Uses of Atomic Energy, held in Geneva in September 1956.

<p>Reports of Soviet Scientists: Nuclear (Cont.)</p> <p>Barney, G.I., and A.Y. Chudakov. <i>Comics May Smear in the USSR by Means of Books and Periodicals</i> (Report 252).</p> <p>Barney, G.I., and V.I. Lebedev. <i>Books and Periodicals mentioned in the U.S.S.R. by V.A. Kiroles, V.I. Shul'zhenko, and V.I. Solyanov</i> (Report 253).</p> <p>Barney, G.I., and V.I. Solyanov. <i>V.I. Lebedev, P.T. Vashchenko, and D.V. Gorbunov</i> (Report 254).</p>	<p>267</p> <p>272</p>
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PHASE I BOOK EXPLOITATION

308/2583

International Conference on the Peaceful Uses of Atomic Energy.  
2nd, Geneva, 1958.

Doklady sovetskikh uchenykh: yadernyye reaktory i yadernaya energetika. (Reports of Soviet Scientists: Nuclear Reactors and Nuclear Power.) Moscow: Atomizdat, 1959. 1707 p. (Series: International Nuclear Energy, vol. 2) Errata slip inserted. 8,000 copies printed.

General Editor: H. A. Dzhelai, Corresponding Member USSR Academy of Sciences; A. N. Kostin, Doctor of Physical and Mathematical Sciences, Associate Professor, Kiev University; V. V. Kostin, Corresponding Member, Ukrainian SSR Academy of Sciences; V. I. Kostin, Corresponding Member, USSR Academy of Sciences and V. S. Burenin, Doctor of Physical and Mathematical Sciences; Ed. A. P. Al'ban; rev. Tech. Ed. I. Muzel.

**PURPOSE:** This book is intended for scientists and engineers engaged in reactor design, as well as for professors and students of higher technical schools where reactor design is taught.

**GOVERNMENT USE OF ATOMIC ENERGY.** This is the second volume of a six-volume collection on Peaceful Uses of Atomic Energy, held from September 1 to 13, 1958 in Geneva. Volume 2 consists of three parts. The first part is devoted to atomic power plants under construction in the Soviet Union; the second to experimental and research reactors; the third which is predominantly theoretical to problems of nuclear reactor physics and construction engineering. Yu. I. Barmash is the science editor of this volume. See Sov/2001 for titles of all volumes of the set. References appear at the end of the articles.

## PART II. EXPERIMENTAL AND RESEARCH REACTORS

Kukulin, I. P., V. A. Butirskiy, V. N. Arshakov, I. I. Bondarenko, O. D. Berezovskiy, Yu. I. Kudryashov, S. A. Panin, Yu. N. Chirkov, K. K. Nemtsev, V. I. Slobodkin, Yu. A. Ushakov, N. N. Chirkov, and E. A. Strel'cov. Experimental-Heat Reactor In The USSR (Report No. 2293) 215

Kukina, I. P., V. A. Butirskiy, I. S. Orlin'ev, Yu. N. Chirkov, S. V. Krasnoshchekov, and B. N. Dubovik. Prototype Reactor With Thermite And Plutonium (Report No. 2552) 232

Domashov, V. V. and et al. Some New and Rebuilt Thermal Research Reactors (Report No. 2055) 243

Brodovitch, B. V., F. Ya. Sosulin, V. I. Klimovskiy, P. V. Gladkov, and Yu. N. Platonov. Dismantling An Experimental Granular Uranium-Isotope Producing Reactor After Four Years of Operation (Report No. 2297) 251

Kupriyanov, S. M., Yu. D. Vorob'ev, V. M. Oryazev, V. B. Ulinayev, and V. A. Tarkhanov. An Intermediate Reactor For Generating High Intensity Neutron Fluxes (Report No. 2142) 334

PART III. PHYSICS AND ENGINEERING OF REACTOR DESIGN

Kupriyanov, S. M., A. I. Abramov, V. N. Andreyev, A. I. Kostylev, I. I. Berezovskiy, V. I. Galkov, V. I. Dolbnev, A. D. Khol'ko, A. M. Quzyrov, G. D. Kostylev, M. V. Kostylev, M. V. Krasnoshchekov, B. D. Kulinich, V. I. Kuznetsov, M. N. Nikolaev, N. N. Salenkov, N. T. Sivashinskii, Yu. I. Ushakov, L. N. Usachov, N. I. Petushkov, and others. Research On The Physics of Fast Neutron Reactors (Report No. 2358) 339

Bratkov, V. N. and B. I. Toffe. Homogeneous Natural Uranium Reactor (Report No. 2256) 377

Reznikov, S. M., Yu. N. Nikol'skiy, A. N. Rovilov, V. P. Ratkov, Yu. V. Komissarov, G. K. Levin, Yu. V. Nekrasov, and Yu. Shevel'ev. Full Burn In Water-Water Reactor Reactors and Experiments With the Uranium Water Lattice (Report No. 2145) 398

Ilyinov, V. A. Self-regulation in a Water-Water Power Reactor (Report No. 2235) 411

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001549120005-4"

TOLSTIKOV, V.A.; SHERMAN, L.Ye.; STAVISSKIY, Yu.Ya.

Measuring the capture cross sections of 5-200 Kev. neutrons for  $U^{238}$   
and  $Th^{232}$ . Atom. energ. 15 no.5:414-415 N '63. (MIRA 16:12)

L 1926-66 EWT(m)/EPF(n)-2/T/EWP(t)/EWP(b)/EWA(m)-2 IJP(c) JD/WW/JG/DM  
ACCESSION NR: AP5023774 UR/0089/65/019/003/0292/0294  
539.125.523.5

11  
E

AUTHOR: Stavisskiy, Yu. Ya.; Sherman, L. Ye.

TITLE: Propagation of resonance-energy neutrons in uranium

SOURCE: Atomnaya energiya, v. 19, no. 3, 1965, 292-294

TOPIC TAGS: neutron spectrum, neutron capture, uranium, fission cross section, capture cross section

ABSTRACT: The propagation of neutrons decelerated in large thicknesses of copper through depleted metallic uranium was studied. During the experiment, the capture cross sections of several elements ( $Mn^{55}$ ,  $In^{115}$ ,  $I^{127}$ ,  $Au^{197}$ ,  $U^{238}$ ,  $U^{235}$ ) were determined relative to the fission cross section of  $Pu^{239}$  from the neutron spectrum formed. The measurements were made in a cavity of the uranium lump and by transmission in a spherical geometry. The integral characteristics of the established spectrum are found to be equal to

$$\frac{\sigma_f(U^{238})}{\sigma_f(U^{235})} = 376 \pm 25 \quad \text{and} \quad \frac{\sigma_f(U^{238})}{\sigma_c(Au^{197})} = 2.74 \pm 0.12.$$

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ACCESSION NR: AP5023774

The lower value of  $\frac{\sigma_f(U^{238})}{\sigma_c(Au^{197})}$  indicates that the neutron spectrum formed in this case is appreciably softer. In general, the spectrum established in metallic uranium is found to be dependent (at least for the thickness employed in practice) on the neutron spectrum of the source. The criterion for the establishment of an asymptotic spectrum with definite characteristics (constancy of the cross section ratio  $\frac{\sigma_f(U^{238})}{\sigma_c(U^{238})}$ ) cannot be considered final, since this ratio is sensitive mainly to the hard region of the spectrum. "In conclusion, the authors thank M. N. Nikolayev for useful comments and the staff attending the BR-1 reactor for assistance." Orig. art. has: 1 figure and 1 table.

ASSOCIATION: none

SUBMITTED: 21Jan65

ENCL: 00

SUB CODE: NP

NO REF SOV: 003

OTHER: 002

2/2

SHERMAN, M.E., inzh.

Methods for computing the volume of production and measuring  
labor productivity in construction. Trudy TSNIIS no. 34:51-106  
'60. (MIRA 13:8)

(Productivity accounting)  
(Building--Estimates)

SHERMAN, M.E., starshiy nauchnyy sotrudnik

Improve the index of fulfilling the plan. Transp.stroi. 12  
no.10:34-36 0 '62. (MIRA 15:12)

1. Otdeleniye ekonomiki Vsesoyuznogo nauchno-issledovatel'skogo  
instituta transportnogo stroitel'stva Ministerstva transportnogo  
stroitel'stva.

(Construction industry--Accounting)

h. - m. d. 14, 17.

USSR/Chemical Technology. Chemical Products and their Application. J-12  
Glass. Ceramics. Building Materials.

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27689.

Author : M.M. Sherman, L.D. Nezhinskaya, M.N. Ortenberg, F.K. Gol'dshteyn.  
Inst : Students' Scientific Society, Kharkov Polytechnical Institute.  
Title : Drossing Method of Preparing Paste for Manufacturing Ceramic Floor  
Tiles.

Orig Pub: Tr. Stud. nauch. o-va. Khar'kovsk. politekhn. in-t, 1956, 1, No 1,  
61-65.

Abstract: The possibility of the application of the dross method to the  
preparation of paste for manufacturing tiles of the clay from the  
Nikoforovsk and Nikolayevsk deposits is considered. It is noted  
that this method could be applied in practice, should the filtra-  
tion capacity of clays from the above mentioned deposits be in-  
creased. The filtration capacity of clays is increased by decrea-

Card : 1/2

-74-

USSR/Chemical Technology. Chemical Products and their Application.  
Glass. Ceramics. Building Materials.

J-12

Abs Jour: Ref. Zh.-Kh., No 8, 1957, 27689

sing the viscosity of dross (heating to 50°) and the introduction of dehydrated clay into the dross composition. Besides, the possibility of shortening the duration of the wet milling of clays from 6-7 hours to 2-3 hours at the expense of introducing 1% of sulfite-alcohol vinassee into dross was established.

Card : 2/2

-75-

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CIA-RDP86-00513R001549120005-

AUTHOR: Sherman, M.S., Engineer

TITLE: A Variant of the Suspension of a High-Frequency Choking  
Coil (Variant podveski vysokochastotnogo drosselya)

PERIODICAL: Energetik, 1958, Nr 5, pp 25-26 (USSR)

ABSTRACT: High-frequency choking coils, type KZ-500, are used in electric power lines in front of the circuit breakers. The suspension of these choking coils presents several problems. On 110/35 kv and 35/6 kv substations the coil can only be suspended from the wire of the line. The coil weighs 150 kg. If 2 coils are necessary the wire has to carry a weight of 300 kg. In many cases special supporting structures have to be built. If the choking coil is suspended from the wire of the power line, operating conditions are adversely affected. In Figures 1 and 2, a new method for suspending choking coils is proposed. These suspensions facilitate the operation of the power line without necessitating additional structures.  
There are 2 figures.

AVAILABLE: Library of Congress

Card 1/1 1. Coils - Application

SHERMAN, M.S.

Clamp for suspension of a high-frequency choke. Energetik 8  
no.6:18-19 Je '60. (MIRA 13:?)  
(Electric lines--Overhead)  
(Electric apparatus and appliances)

SHERMAN, M.S., inzh.

High frequency communication channels in case of partial utilization  
of the conductors of electric transmission lines. Energetik 10 no.7  
20-21 Jl '62. (MIRA 15:7)

(Electric power distribution)

SHERMAN, M. YA.

PA 153T51

USSR/Engineering - Refractories  
Dryers

Nov 49

"Automatization of the Tunnel Driers of the Chamotte  
Shops of Krasnogorodskiy Plant imeni Lenin,"  
M. Ya. Sherman, Engr, 8 pp

"Ogneupory" No 11

Cen Automatics Lab automatized block of nine driers.  
Explains drying operation, and methods employed  
for control of moisture, pressure, flow and  
temperature of air. Another five blocks are being  
automatized during 1949. Designs for serial pro-  
duction of low-cost moisture regulator are under  
way. Includes seven sketches.

153T51

SHERMAN, M. Ya.

PHASE I

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 95 - I

Call No.: TN 673.T6

BOOK

Author: TOPFRVERKH, N.I. and SHERMAN, M.Ya.

Full Title: THER'OTECHNICAL MEASURING AND REGULATING INSTRUMENTS IN METALLURGICAL PLANTS

Transliterated Title: Teplotekhnicheskie izmeritel'nyye i reguliruyushchie pribory na metallurgicheskikh zavodakh.

Publishing Data

Originating Agency: None

Publishing House: State Publishing House on Scientific and Technical Literature on Ferrous and Non-Ferrous Industries.

Date: 1951 No. pp.: 430 No. of copies: 7,000

Editorial Staff

Editor: L'vov, M.A.

Editor-in-Chief: None

Tech. Ed.: Vaynshteyn, E.B.

Appraiser: None

Text Data

Coverage: The book examines controlling, measuring, and regulating devices for the automatic regulation of the heating processes in metallurgical furnaces. Basic information on the assembly and layout of instruments is presented.

Purpose: A textbook for metallurgical students specializing in blast furnace, alloy, and rolled steel processes.

Facilities: Institute of Automatics and Telemechanics of the Academy of Sciences of the USSR, Central Laboratory of Automatics. Koshtyal, Yu.F.,

1/2

SHER'IAN, M. Ya.

Teplotekhnicheskie izmeritel'nyye i reguliruyushichie Call No.: TN 673.T6  
pribory na metallurgicheskikh zavodakh

Maslovskiy, P. M., Gudovshchikov, S. S., Zuts, K. A., Shneerov, Ya. A.,  
Makarov, A. N., Fil'tser, G. A. and Zvenigorodskiy, B. M. received  
Stalin prizes for their work in introducing automatic regulation  
instruments into Marten and blast furnace operation.

No. of Russian or Slavic References: 22

Available: Library of Congress.

2/2

MAKAROV, A.N.; SHERMAN, M.Yu.

[Calculation of throttle valves for measurement and control] Ruschet izme-  
ritel'nykh i reguliruyushchikh drossel'nykh ustroistv. Moskva, Gos. nauchno-  
tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1953. 283 p.  
(MIRA 6:9)  
(Valves)

ARONOV, Samuil Grigor'yevich; BAUTIN, Ivan Grigor'yevich; VOLKOVA, Zoya Andreyevna; VOLOSHIN, Arkhip Il'ich; VIROZUB, Yevgeniy Vladimirovich; GABAY, Lev Izrailevich; DIDENKO, Viktor Yefimovich; ZASHKVARA, Vasilii Grigor'yevich; IVANOV, Pavel Aleksandrovich; KUSTOV, Boris Iosifovich [deceased]; KOTOV, Ivan Konstantinovich; KOTKIN, Aleksandr Matveevich; KOMANOVSKIY, Maksim Semenovich; LEYTES, Viktor Abramovich; MOROZ, Mikhail Yakovlevich; NIKOLAYEV, Dmitriy Dmitriyevich; OBUKHOVSKIY Yakov Mironovich; RODSHTEYN, Pavel Moiseyevich; SAPOZHNIKOV, Yakov Yudovich; SENICHENKO, Sergey Yefimovich; TOPORKOV, Vasiliy Yakovlevich; CHERMNYKH Mikhail Sergeyevich; CHERKASSKAYA, Esfir' Ionovna, SHVARTS, Semen Aronovich; ~~SHERMAN~~, Mikhail Yakovlevich; SHVARTS, Grigoriy Aleksandrovich; LIBERMAN, S.S., redaktor izdatel'stva; ANDREYEV, S.P., tekhnicheskiy redaktor

[Producing blast furnace coke of uniform quality; a collection of articles for the dissemination of advanced practices] Poluchenie domennogo koksa postoiannogo kachestva; sbornik statei po obmenu peredovym optyom. Khar'kov, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1956. 300 p. (MLRA 9:8)  
(Coke industry)

TOPERVERKH, Nikolay Isaakovich; SHERMAN, Mendel' Yakovlevich; MAKAROV, A.N.,  
redaktor; CHELYUSTKIN, A.B., redaktor; MIKHAYLOVA, V.V., tekhnicheskiy redaktor

[Thermal measuring and regulating devices in metallurgy] Teplotekhnicheskie izmeritel'nye i reguliruiushchie pribory na metallurgicheskikh zavodakh. Izd. 2-oe, perer. i dop. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1956. 606 p. (MLR 10:1)  
(Metallurgy--Apparatus and supplies)

SHERMAN, M.Ya., inzhener.

Automatic correction of consumption gauge indexes. Stal' 16 no.3:  
257-259 Mr '56. (MIRA 9:7)

1. TSentral'naya laboratoriya avtomatiki.  
(Gasometers and gasometry)

5(1)

SOV/112-59-3-5626

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 3, p 193 (USSR)

AUTHOR: Sherman, M. Ya.

TITLE: Automation of the By-Product Coke Industry  
(Avtomatizatsiya koksokhimicheskogo proizvodstva)

PERIODICAL: V sb.: Avtomatiz. khim. i koksokhim. proiz-v. M., Metallurgizdat,  
1958, pp 224-248

ABSTRACT: A review of the state of automation in the by-product coke industry  
and of the objectives of complex automation of processes in the major depart-  
ments of a coke and chemical plant is presented. Fifteen illustrations.

Bibliography: 2 items.

Card 1/1

SHERMAN, M.YA.

68-1-5/22

AUTHORS: Virozub, I.V., Voloshin, A.I., Kezmina, V.V., and  
Sherman, M.YA.TITLE: The Control of Thermal Conditions of Coke Ovens (Regul-  
irovaniye teplovogo rezhima koksovykh pechey)

PERIODICAL: Koks i Khimiya, 1958, No.1, pp. 17 - 24 (USSR)

ABSTRACT: Some relationships between various parameters affecting thermal conditions of coke ovens are discussed in order to indicate the basis for choosing some parameters as sources of impulses for the automatic control of the coke oven heating system. UKhIN and TSLA (Central Laboratory of Automation) proposed a system of automatic control of thermal conditions of coke ovens which secures a constant supply of heat and a constant excess of air coinciding at a constant temperature of air in the tunnel, with a constant suction at the top of the regenerators in the ascending stream. The proposed system is described in some detail (Figs. 1 and 2). It was installed on the No. 1 battery of the Zaporozhsk Coke Oven Works (Zaporozh'ye koksokhimicheskiy zavod) and operated for about two years with satisfactory results. In addition to the described method of direct control of the supply of heat, three other indirect methods were installed and operated in the Soviet Union: 1) a scheme proposed by V.G. Mosyakov. The

Cardl/5

The Control of Thermal Conditions of Coke Ovens.

68-1-5/22

at the top of the regenerators. This method with some modifications was used for the above described TsLA-UKhIN method. In conclusion, the authors point out that further studies of the methods used is necessary in order to choose the best elements from each method for the development of a scheme for complete automation of heating coke ovens.

There are 4 figures and 6 Slavic references.

ASSOCIATIONS: UKhIN and TsLA

AVAILABLE: Library of Congress  
Card 3/3

Making preparations of vitamin B complex, suitable for parenteral administration. S. N. Komarov and O. S. Sherman, *Proc. Soc. Int. Vitamin Research U. S. S. R.* 37, 561, 68-104 (1941).—A simplified method has been developed for prep. B vitamins (chiefly B<sub>1</sub>) from fresh brewer's yeast for parenteral administration. No exts were made with aq. alk. because of its cost; full attention was given to extn. with hot water. Flavin (I) and B<sub>1</sub> do not respond to the same extn. conditions. Yield of B<sub>1</sub> was doubled, whereas yield of I was decreased, by prenatolysis of the yeast in presence of CHCl<sub>3</sub> at 37° or by extg the boiled yeast 24 hrs. at room temp. The optimum conditions for extg. I are pH 4, boiling time about 30 min., for B<sub>1</sub>, pH 5-6, boiling time 2-6 min. Both I and B<sub>1</sub> are about 80% recovered from the aq. ext. by adsorption on gumbrin, a Canadian bleaching earth, at pH 3.5-4.5 in 10-30 min. Elution with satd. aq. NH<sub>4</sub>Cl recovers about 80% of the adsorbed B<sub>1</sub> and is superior to the pyridine method of Greene and Black (C. A. 31, 6309). A 2% NaOH soln. was used for elution of I. The B<sub>1</sub> eluate was extd. with 88% PhOH, which was then dild. with Et<sub>2</sub>O and extd. with H<sub>2</sub>O in small portions. The final aq. ext. contained about 60% of the adsorbed B<sub>1</sub>. To recover I the 2% NaOH eluate was acidified with HCl, satd. with NaCl and extd. with 88% EtOH. By fractional elution a combined eluate was finally obtained with 0.15 mg. I and 1.5 mg. B<sub>1</sub> per ml. Presence of all the B vitamins in this prepn. was indicated by a biol. assay. J. F. Smith

**Vitamin B<sub>1</sub> assays in food products.** O. S. Sherman. *Proc. Sci. Inst. Vitamin Research U. S. S. R.* 3, No. 1, 114-23 (1941). Systematic chem. assays were carried out for 10 months to det. the vitamin B<sub>1</sub> content of rye and wheat flours and buckwheat, barley and millet grits. After comparing published extn. methods S. adopted his own method (cold extn. with inorg. acid, aided by trituration). Each ext. was oxidized with alk. ferricyanide to form thiocyanate, which was extd. with isobutanol. Fluorescence of the ext. was then measured in ultraviolet light. Results agreed well with biol. assays. The 10-month averages were:

Sample	Grade	In per cent of dry grain
Rye flour	95%	3.74 y
Rye flour	87%	3.76
Wheat flour	90%	6.57
Wheat flour	85%	4.37
Wheat flour	72%	2.13
Buckwheat	Grits	6.19
Barley	Grits	3.0
Millet	Cracked	4.89
Millet	Crushed	4.25
Millet	Ground	2.51

Millet Vitamin B<sub>1</sub> proved to be stable (no loss in 7 months) when stored in a dry environment. Julian F. Smith

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SHERMAN, O. S.

SHERMAN, O. S. -- "Vitamin B<sub>1</sub>-- methods of its determination, content in Food Products, and Preservation During Culinary Processing." Latvian State U, 1948  
(Dissertation for the Degree of Candidate of Chemical Sciences)

SO: Izvestiya Ak. Nauk Latvivskoy SSR, No. 9, Sept., 1955

*SHERMAN, O. S.*

*U.S.D.*

The vitamin content of raw foods and the effect of cooking.  
O. S. Sherman, Trudy Veseyus, Nauck-Isidoroff.  
Tibmin. 727, 156-202 (1963).—Boiling potatoes, cabbage,  
and carrots reduces their vitamin B<sub>1</sub> content 8-13%.  
During boiling, frying, or braising meat loses 37-55% of  
vitamin B<sub>1</sub>. Boiling milk or eggs does not reduce their  
vitamin B<sub>1</sub> content noticeably. Other foods lose some of  
their vitamins in the various hot processes of prep.  
B. S. Levine

U S S R

2235. Colorimetric method for the determination of thiabutene in industrial preparations. O. S. Shcherbinina and S. M. Kogan [Tr. Vses. N.-I. Vitaminov. Insta, 1953, 4, 230-244; *Referativnyi Zh. Khim.*, 1954, Abstr. No. 45,180].—In an alkaline medium thiabutene (I) reacts with diazotised p-aminonacetophenone (II) to form a coloured compound, which can be measured absorptionmetrically. I is separated from biological materials by shaking an aqueous extract at pH 2 to 4.6 with white Chapantaninsky clay, which adsorbs 90 to 95 per cent. of I. The adsorbate is washed with ethanol and ether and dried at 70° to 80° C. II is diazotised at 0° to 6° C by stirring a solution (0.159 g of II + 2.25 ml of HCl soln, sp. gr. 1.19, + water to 25 ml) with an equal volume of 4.5 per cent. NaNO<sub>2</sub> soln. for 10 min.; four times its vol. of NaNO<sub>2</sub> soln. is then added to the mixture and it is set aside for

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*O. S. Skerseck*

20 min. To determine I, 0.5 ml of the diazotised soln. of II is mixed with 2 ml of a soln. containing 2 per cent. of NaOH and 2.88 per cent. of NaHCO<sub>3</sub>, and, when the rose colour has disappeared (1 to 1.5 min.), the mixture is poured into a cylinder containing 0.1 to 0.2 g of adsorbate (3 to 25 µg of I), 1 ml of water and 3 ml of 0.5 per cent. ethanolic soln. of phenol. After mixing for 20 to 30 min., 2 ml of xylene are added and the mixture is shaken for 1.5 to 2 hr. The intensity of the colour in the xylene layer is compared with standards prepared from cryst. I, the amount of I in these standards increasing in steps of 2 µg. For polyvitamin preparations, the vitamin C is first oxidised. Five tablets are treated with 250 ml of water containing 0.5 ml of 1 per cent. HCl soln. A 1 per cent. KMnO<sub>4</sub> soln. is added to 25 ml of this soln. until a rose colour persists; the soln. is decolorised with 0.3 per cent. H<sub>2</sub>O<sub>2</sub> soln., diluted to 80 ml with water and filtered. One ml of the filtrate is used for the analysis. The results agree with those obtained by the thiocchrome method.

E. HAVES

*2/8*

BEKESHCHUK, N., red.; OGNEV, O., red.; SHERMAN, R., red.; TURABAYEV, B.,  
tekhn. red.

[Famous for their work] Proslavlennye trudom. Alma-Ata, Ka-  
zakhskoe gos. izd-vo, 1960. 286 p. (MIRA 15:4)  
(Kazakhstan—Agriculture)

NASONOV, Vladimir Stepanovich, kand. ekon. nauk; SHERMAN, R.,  
red.; NAGIBIN, P., tekhn. red.

[A mechanized center for each state farm] Mekhanizirovaniy  
yi zernopunkt - kazhdomu sovkhozu. Alma-Ata, Kazsel'khoz-  
giz, 1963. 62 p.  
(MIRA 17:1)

ПАТЕНТ СССР № 1000000. Метод и приспособление для измерения толщины ткани, с. Г. А. Смирнов.

Метод и приспособление для измерения толщины ткани на текстильной вязальной машине. Текст. пром. № 1000000. Г. А. Смирнов. (МКРН 17-12)

Г. А. Смирнову! Отдела фабрика Тбилисского машиностроительного института текстильной и легкой промышленности Союзитетропного комитета по легкой промышленности при Совете министров РСФСР Бардзил'ский, А. Тбилисский машиностроительный институт текстильной и легкой промышленности Ассоциации текстильного комитета по легкой промышленности при Совете министров РСФСР г. Тбилиси.

С.М.И.С., к.т.

Vorob'ev, N. N. and S.erman, A. I. "Zinc-coating of iron in  
a potassium chloride solution," *Investiya Kiyevsk. politekhn. in-ta*, Vol. VIII, 1951 (in cover: 1952), p. 157-58

SO: "ИДИС," 11 Dec 1952, (Lettovsk. Metal'nyi Stat'ev, no. 2, 1952)

POZDNYAKOV, Petr Mikhaylovich, kandidat biologicheskikh nauk; SHERMAN, R.N.,  
redaktor; ZIOBIN, M.V., tekhnicheskiy redaktor

[Artificial insemination of sheep] Iskusstvennoe osemenenie ovets.  
Alma-Ata, Kazakhskoe gos. izd-vo, 1956. 30 p. (MLRA 9:10)  
(Sheep breeding)  
(Artificial insemination)

TSOY, V.P., red.; SHERMAN, R., red.; NAGIBIN, P., tekhn.red.

[Sugar beets] Sakharnaia svokla. Izd. 2., dop. i perer.  
Alma-Ata, Kazakhskoe gos. izd-vo, 1958. 171 p. (MIRA 12:2)  
(Sugar beets)

RASHCHENKO, Ivan Nazarovich; SHERMAN, R. N., red.; OYSTRAKH, V. G.,  
tekhn. red.

[Homemade cured food, preserves, and marinades] Domashnie  
solen'ia, varen'ia i marinady. Alma-Ata, Kazakhskoe gos. izd-  
vo, 1962. 221 p. (MIRA 16:2)  
(Canning and preserving)

SAKHAROV, I.; GNEZDILOV, Yu.; SENNIK, V.; MALAKHOV, V.; SHERMAN,  
R.N., red.; KUZEMBAYEVA, A., tekhn. red.

[Use of machines and tractors on collective farms] Eksplu-  
atatsiia mashinno-traktornogo parka v kolkhozakh. Alma-Ata,  
Kazakhskoe gos. izd-vo, 1961. 178 p. (MIRA 16:4)  
(Kazakhstan--Agricultural machinery)

ROZENFEL'D, I.L.; RUBINSHTEYN, F.I.; YAKUBOVICH, S.V.; SHERMAN, R.S.;  
UVAROV, A.V.

Studying the protective effect of oil paints modified with  
chromic acid guanidine. Lakokras.mat.i ikh prim. no.6:11-15  
'62. (MIRA 16:1)

(Protective coatings) (Guanidine)

"APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001549120005-4

SHERMAN, R. Z., AND YE. KH. GANYUSHINA

"Syvorotochnaya bolezn' (Serum Sickness), Biomedgiz, 1936

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001549120005-4"

1a

15

**Blood cholesterol in malarial children.** R. Z. Sherman, *Arch Dis Child* 1960, No. 6, 38-9. Studies on 31 patients up to 12 yrs. of age, showed that before therapy, during apyrexia, the cholesterol (1) content of blood was 150-180 mg. % in 8 cases and 20-130 mg. % in 20 cases. At the onset of fever the av. 1 level was 107.4 mg. %. On treatment with areschicine the 1 level was normal in 10 cases, 130-150 mg. % in 6 cases and 190-210 mg. % in 3 cases. In 15 cases the 1 level remained low (20-130 mg. %) after treatment. Hypocholesterolemia is not always an indicator of the gravity of the disease. E. Lazarus

AT&T SLA METALLURGICAL LITERATURE CLASSIFICATION

pa

1/6

Bilirubinemia in malarial children. R. Z. Sherman  
*Pediatrics* 1960, No. 6, 39-40. - Conclusions based on 112  
detns. in 57 children: On the assumption that the normal  
bilirubin content (I) of blood is 0.2-0.6 mg. %, the I is  
higher before therapy, during a pyrexia and at the onset of  
an attack. On therapy with *acridine*, with or without  
plasmocide, the I decreases but does not descend to nor-  
mal. The degree of bilirubinemia during an attack de-  
pends on the gravity of the latter. On completion of  
therapy, in relapsing cases, the I remains high. The detn  
of I during malaria is valuable for prognostic purposes.  
T. Lazarus

ASB SLA METALLURGICAL LITERATURE CLASSIFICATION

PA 46/49T76

SHERMAN, R.Z.

USSR/Medicine - Malaria, Therapy  
Medicine - Pediatrics

Mar 49

"Particulars of the Clinical Aspects and Treatment of Malaria in Children," R. Z. Sherman, Clinic, Pediatrics Faculty, Second Moscow Med Inst imeni I. V. Stalin, 2 pp

"Sov Med" No 3

✓ Incidence of malaria in USSR in 1948 was [redacted] to one fourth of the 1935 figure. Summarizes speech on 1948 results and 1949 plans by Prof I. I. Razozin, chief, Main Sanitary Antiepidemic Administration.

46/49T76

SHERMAN, R. Z., DR MED SCI

USSR/Medicine - Antibiotics

Jun 51

"Treatment of Bacillary Dysentery of Children With  
Synthomycin," R. Z. Sherman, Dr Med Sci, Ye. V.  
Prokhorovich, Laureate Stalin Prize, S. A. Mirkina,  
Moscow, Children's Clinical Hosp, Moscow

"Klin Med" Vol XXIX, No 6, pp 26-32

Synthomycin (synthesized in 1949 at Lab of Exptl  
Chemotherapy of Infectious Diseases, All-Union Sci  
Res Chem Phar Inst iment S. Ordzhonikidze) is very  
effective in dysentery of young children which can-  
not be treated with serum, bacteriophage, or sulfa  
drugs. (The bacteria develop resistance to sulfa  
drugs.) Toxicosis is rapidly eliminated by treatment  
198T52

USSR/Medicine - Antibiotics (Contd)

Jun 51

with synthomycin, so that a normal diet can be re-  
stored. When there is retching, the drug can be  
administered rectally. Subcutaneous injection is  
not essential.

198T52

YERMOL'YEVA, Z.V.; SHERMAN, R.Z.; RAVICH, B.V.; YAKIMOVA, M.P.

Results of the treatment of dysentery with streptomycin associated with ecmoline. Klin. med., Moskva 31 no.2:26-30 Feb 1953. (CIML 24:3)

1. Professor, Doctor Medical Sciences for Sherman; Candidate Biological Sciences for Ravich. 2. Moscow.

SHERMAN, R.Z., doktor meditsinskikh nauk (Moskva); TATARINOVA, S.D.(Moskva);  
YAKIMOVA, M.P. (Moskva)

Results of treating chronic dysentery in children with synthomycin  
and streptomycin with ecmoline. Klin.med. 34 no.7:90 J1 '56.

(MLRA 9:10)

1. Iz kafedry mikrobiologii (zav. - chlen-korrespondent AMN SSSR  
prof. Z.V.Yermol'yeva) TSentral'nogo instituta usovershenstvovaniya  
vrachey (dir. V.P.Lebedeva) i yasley Moskvoretskogo rayona (zav.  
M.P.Yakimova)

(DYSENTERY) (ANTIBIOTICS)

SHEVYAKOVA, O.I.; SHERMAN, R.Z.; TATARINOVA, S.D.

Oxytetracycline and bacteriophage therapy of dysentery in children.  
Antibiotiki 3 no.6:99-102 N-D '58. (MIRA 12:2)

1. Kafedra mikrobiologii (zav. - chlen-korrespondent AMN SSSR prof. Z.V. Yermol'yeva) TSentral'nogo instituta usovershenstvovaniya вра-  
чей i gorodskiyem detskiyem bol'nitay No.6 (glavnyyi vrach D.G. Naumo-  
va) i No.24 (glavnyyi vrach Ye.Z. Katkova).

(DYSENTERY, BACTERIOPHAGE, in inf. & ther.

ther., bacteriophage & oxytetracycline (Rus))

(OXYTETRACYCLINE, ther. use,

dysentery in child., with bacteriophage (Rus))

(BACTERIOPHAGE, ther. use,

dysentery in child., with oxytetracycline (Rus))

SHEVYAKOVA, O.I.; SHERMAN, R.Z.; TATARINOVA, S.D.

Use of a combination of levomycetin and bacteriophage in dysenterial infection in children. Antibiotiki 6 no.3:241-243 Mr '61.

(MIRA 14:5)

1. Kafedra mikrobiologii (zav. - chlen-korrespondent AMN SSSR prof. Z.V.Yermol'yeva) TSentral'nogo instituta usovershenstvovaniya vrachey i 6-ya Gorodskaya detskaya bol'nitsa (glavnnyy vrach D.G.Naumova).  
(CHLOROMYCETIN) (BACTERIOPHAGE)  
(DYSENTERY)

Shchennik, A.Z.; SEVLAKOVA, O.I.; TATARINOVa, S.D.

Treatment of dysentery in children with tetracycline together with a bacteriophage. Sov.med. 25 no.7:91-95 J1 '61. (MLA 15:1)

1. Iz kafedry mikrobiologii (zav. - chlen-korrespondent AMN SSSR prof. Z.V. Yermol'yeva) TSentral'nogo instituta usovershenstvovaniya vrachey (dir. M.D. Kovrigina) i 6-y Gorodskoy detskoy bol'nitsy (glavnnyy vrach D.G. Naumova)  
(BACTERIOPHAGE) (TETRACYCLINE) (DYSENTERY)

SHERMAN, R.Z.; SHEVYAKOVA, O.I.; TATARINOVA, S.D.

Antibiotics in pediatrics (dysentery, coli-enteritis, pneumonia)  
Antibiotiki 7 no.8:749-757 Ag '62. (MIRA 15:9)

(ANTIBIOTICS) (DYSENTERY) (INTESTINES--DISEASES) (PNEUMONIA)

AGABABOVA-SKOBELEVA, V.V., kand. med. nauk; DOBROKHOTOVA, A.I., prof. [deceased]; ZHUKOVSKIY, M.A., kand. med. nauk; LEBEDEV, D.D., zasl. deyatel' nauki prof.; MARTINSON, Kh.S., kand. med. nauk; MOLCHANOV, V.I., prof.; NCSOV, S.D., prof.; SCBOLEVA, V.D., doktor med. nauk; SOLOV'YEV, V.D., prof.; SUKHAREVA, M.Ye., prof.; SHAPIRO, S.L., kand. med. nauk; SHERMAN, R.Z., doktor med. nauk; SHIRVINDT, B.G., prof.; DOMBROVSKAYA, Yu.F., otv. red.; POTAPOVA, I.N., red.; BEL'CHIKOVA, Yu.S., tekhn. red.

[Multivolume manual on pediatrics] Mnogotomnoe rukovodstvo po pediatrii. Moskva, Medgiz. Vol.5. [Infectious diseases in children; aerial and droplet infections] Infektsionnye bolezni v detskom vozraste; vozдушно-капельные инфекции. Red. toma S.D.Nosov. 1963. 547 p. (MIRA 16:6)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Skobeleva, Solov'yev). 2. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Dombrovskaya).

(PEDIATRICS) (COMMUNICABLE DISEASES)

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Staphylococcus aureus, 1974, 100-1000, 1000.

Interaction of ciprofloxacin, chloramphenicol, a combination of  
antibiotics and bacteriophage. Friday 7/13/87 11:34:53 '88.  
(MPC) 18111

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001549120005-4"

SHERMAN, R.Z.; SHEVYAKOVA, O.I.; TATAR'NOVA, S.D.; SHUMOVA, B.I.;  
GOL'TSEKER, A.I.; KOLESNIKOVA, Yu.S.

Bacteriophage and tetracycline in the prevention of dysentery  
among contact children. Antibiotiki 10 no. 10:948-952  
(MIPA 18:12)  
O '65.

1. Kafedra mikrobiologii (zav. - deystvitel'nyy chlen AMN SSSR  
prof. Z.V. Yermol'yeva) TSentral'nogo instituta usovershenstvo-  
vaniya vrachey i Sanitarno-epidemiologicheskoy stantsii (glavnnyy  
vrach I.F. Krasavin) Kiyevskogo rayona, Moskva. Submitted  
Dec. 13, 1963.

S/0057/64/034/002/0313/0320

ACCESSION NR: AP4013420

AUTHOR: Abrosimon, N.K.; Kaminker, D.M.; Petrov, I.A.; Sherman, S.G.

TITLE: On the theory of a duct consisting of magnetic quadrupole lenses for obtaining pure beams of  $\mu$ -mesons of various energies

SOURCE: Zhurnal tekhn.fiz., v.34, no.2, 1964, 313-320

TOPIC TAGS: meson,  $\mu$ -meson,  $\pi$ -meson,  $\mu$ -meson duct, magnetic lens, quadrupole magnetic lens, magnetic lens system, momentum selector

ABSTRACT: The theory of the so-called  $\mu$ -meson duct is discussed (A.Citron a. H. Overas. Report CERN sc.,143,1961; E.Braunersreuther, V.Chabaud, C.Delorme and M. Morugo, Report CERN 61-12,1961). The duct consists of a sequence of identical and equally spaced magnetic quadrupole lenses so oriented that the successive convergence planes are perpendicular to each other, and is intended for obtaining a beam of  $\mu$ -mesons from the decay in flight of  $\pi$ -mesons. Previous theoretical treatments have restricted the discussion to the case of thin lenses. The results of the present paper are valid for lenses of arbitrary thickness (length). The equation of

Card 1/2

SHERMAN, S.G.

MATUSEVICH, I.Z.; SHERMAN, S.G.

Expert diagnosis of working disability in peptic ulcer in the  
post-war period. Sovet.vrach.sborn. no.17:30-33 s '49. (GLML 19:2)

1. Clinic of the Leningrad Institute for Determination of Working  
Capacity and for Rehabilitation of Invalids.

SHERMAN, S. G.; SOBOLEVA, A. V.; VELIKSON, I. N.; MAKHLINA, V. B.

Lungs - Diseases

Clinico-functional method of determination of the state of respiratory insufficiency in chronic non-tuberculous pulmonary diseases. Klin. med. 30 no. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, September 1952. UNCLASSIFIED.

*SHERMAN, S.G.*

SHERMAN, S.G.; FAYNSHTEYN, S.S.

Organization of the employment of pulmonary tuberculosis patients.  
(MIRA 8:4)  
Probl.tub. no.1:9-13 Ja-F '55.

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta ekspertizy  
trudosposobnosti i trudoustroystva invalidov.  
(TUBERCULOSIS, PULMONARY, economics,  
employment)  
(INDUSTRY AND OCCUPATIONS,  
employment in pulm. tuberc.)

CHAYKA, V.V., doktor med.nauk; SHERMAN, S.G., starshiy nauchnyy sotrudnik

Functional evaluation of a system of respiration in tuberculosis  
patients working in cotton thread spinning plants. Vrach.delo no.5:  
541 My '59. (MIRA 12:12)

1. Leningradskiy nauchno-issledovatel'skiy institut tuberkuleza.  
(RESPIRATION) (TUBERCULOSIS)